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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,012	03/31/2000	John S. Haikin	36J.P269	2555

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EXAMINER	
NGUYEN, MADELEINE ANH VINH	
ART UNIT	**PAPER NUMBER**
2626	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/540,012	HAIKIN ET AL.	
	Examiner	Art Unit	
	Madeleine AV Nguyen	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50 and 88-94* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-50 and 88-94* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 March 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/26/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This communication is responsive to amendment filed on November 26, 2004.

Applicant cancels claims 52-87, amends claims 51, 88, 89, 90, and adds new claims 91-94.

Information Disclosure Statement

Applicant addresses that a fifth IDS, filed on October 9, 2003, has not been considered.

It is noted that there is no IDS filed on October 9, 2003. However, there is an Information Disclosure Statement filed on September 22, 2003 without the attached form PTO-1449 and a copy of each document listed. The examiner encloses a copy of the IDS form for confirmation and requests the attached form PTO-1449 and a copy of each document listed for consideration.

Response to Arguments

Applicant remarks that Ring fails to teach a color data file that contains source device color characteristic data based on which a color transform is constructed.

Ring teaches a color management system that converts or transforms input color image data to output color image data. In order to have the source device color characteristic data, such as a scanner or a monitor, a scanner profile (Fig.5) or monitor profile (Fig.6) are previously made and stored in the device in the colorimetric specification 14 (Fig.1) or colorimetric device model 44 (Fig.2). From Fig.2, the original image 34 is input into the input device 36 which converts the original image 34 into input data 38 in an input device color space as a device dependent space.

The inputs in the device dependent space 38 are then converted into device-independent signals in a device independent space 42 by the input device transform or model 44 based on the input viewing conditions. Thus, Ring teaches a color data file that contains source device color characteristic data based on which a color transform is constructed.

Applicant further remarks that it is true that Ring teaches techniques for characterizing color devices but it is equally true that all of Ring's characterizing techniques are employed with the sole objective of providing a mathematical model.

From Figs. 5-8, it is very clear that Ring teaches the sole objective is forming a scanner profile, monitor profile, printer profile as input or output profiles. The end products of all the procedures in Figs.5-8 are the scanner profile, monitor profile, or printer profile as input or output profiles which are stored in the input or output devices.

Therefore, Applicant's arguments filed on November 26, 2004 have been fully considered but they are not persuasive.

The rejections of the claims are maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-35, 41-50, 91-92, 93-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring et al (US Patent No. 5,754,184).

Concerning claim 1, Ring et al discloses a method for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device (Figs.1 and 2) comprising the steps of accessing a source color data file (38, 44), constructing a source color transform (44, 42, 46); applying the source color transform to the source image data (38) to transform the source color image data from a source device color space into intermediate color image data in an intermediate color space (device independent color space), (40), (col. 5, line 1 – col. 6, line 22; col. 9, lines 1-63).

Ring et al does not directly teach that the source color data file containing source device color characteristic data. However, Ring further teaches in Fig.5 that the input device characteristic models or transforms can be obtained from the device manufacturer or can be measured based on the viewing conditions (Fig.5; col. 9, lines 1-41). From Figs.5-8, an end product is an input device profile or output device profile such as a scanner profile, a monitor profile or a printer profile is formed. In addition, Ring teaches a color management system that converts or transforms input color image data to output color image data. In order to have the source device color characteristic data, such as a scanner or a monitor, a scanner profile (Fig.5) or monitor profile (Fig.6) are previously made and stored in the device in the colorimetric specification 14 (Fig.1) or colorimetric device model 44 (Fig.2). From Fig.2, the original image 34 is input into the input device 36 which converts the original image 34 into input data 38 in an input device color space as a device dependent space. The inputs in the device dependent space 38 are then converted into device-independent signals in a device independent space 42 by the

input device transform or model 44 based on the input viewing conditions. It would have been obvious to one skilled in the art at the time the invention was made to consider the source data file in Ring contains source device color characteristic data since Ring teaches that "the present invention converts all inputs into an intermediate color data metric 40 with an associated set of intermediate viewing condition assumptions." (col. 3, lines 48-53); and the fact that Ring teaches input device profile (Figs.5-8), colorimetric specification 14 stored in the input device (Fig.1) or the colorimetric device model 44 for color transformation of the input color data (Fig.2) is equivalent to a color data file that contains source device color characteristic data based on which a color transform is constructed.

Concerning claims 2-3, 8-35, 41-50, Ring et al further teaches the source device color characteristic data contains measured colorimetric data (44) and corresponding device signal data (42), (claim 2); the color data file contains viewing condition data (42), (claim 3); the device signal data represents a set of input or output command signal values for the source device (claims 8, 10),(col. 5, lines 19-25); the measured colorimetric data represents a set of measured color values corresponding to a color image rendered by the source device (claims 9, 11), (col. 3, lines 48-65); the input command signal values are for the printer (26) and the set of measured color values rendered by the printer (claim 12); the source device is a scanner (10), (claim 13); the step of transforming the intermediate color image data into destination color image data in a destination device color space (60), (claim 14); the step of incorporating the source color transform in a color transformation sequence and the step of applying the color transform sequence to the source color image data (Fig.2), (claims 15, 16); wherein the step of transforming the interim color image data into destination color image data includes accessing a

destination color data file (50), constructing a destination color transform (48), transforming a set of color data from the intermediate color space to the destination device color space (60) by using a color profile, (claims 17, 18); the intermediate color space is a device independent color space such as CIE LAB, XYZ (col. 9, lines 7-11), (claims 19-22, 41-44); the construction of the source color transform is based on the viewing condition data or a set of desired viewing condition data and utilizes a color appearance model, a look-up table, polynomial function wherein the source color transform is a single variable or multi-variable transform (Figs.2-3; col. 3, lines 48-65; col. 4, lines 5-21; col. 5, line 19 – col. 7, line 32; col. 9, lines 1-63), (claims 23-31, 45-46); the step of optimizing the source color transform wherein the source image transform is formatted according to a predetermined standardized format (claims 31-35); the source color transform is stored in a memory, a device color profile wherein a source gamut boundary description is used in conjunction with a destination gamut boundary description (claims 47-50), (col. 5, line 1 – col. 9, line 32).

Concerning claims 4-7, Ring et al further teaches that the color data file contains viewing condition data (42) wherein the viewing condition includes specification data (col. 5, lines 36-63; col. 6, lines 10-22).

Ring et al fails to directly teach that the viewing condition data includes ambient colorimetric specification data, surround colorimetric specification data, background colorimetric specification data or adapting field colorimetric specification data. However, in Fig.1, Ring et al teaches colorimetric specification 14 which includes different colorimetric specifications such as XYZ or separations such as CMYK in order to construct a source color transform to transform the source color image data from a source device color space into intermediate color image data

as claimed (col. 5, lines 3-34). It would have been obvious to one skilled in the art at the time the invention was made to includes the above mentioned specifications in the colorimetric specification 14 in Ring et al system since all of the specifications are for transforming an image data from a source color space to an intermediate color space and the claimed specifications are commonly known in the art.

Concerning claims 91-92, Ring further teaches that the source color data file contains both the source color image data (38) and the source device color characteristic data (44) wherein the input image data 38 are converted into device independent signal in a device independence space 42 by the input device transform 44 (Fig.2; col. 5, lines 56-63).

Concerning claim 93, Ring discloses a method for managing color data to transform source color image data from a source device into destination color image data as disclosed in claim 1 above. Ring further teaches that the transformation of source color image data from the source device into destination color image data is for rendering by a destination (Abstract; col. 3, lines 47-52; col. 8, lines 61-67).

Concerning claim 94, Ring teaches a computer readable medium which stores computer executable process steps as disclosed in claims 1 and 93 above (col. 5, lines 1-55).

3. Claims 36-37, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring et al as applied to claim1 above, and further in view of Meir et al (US Patent No. 6,037,950).

Concerning claims 36-37, Ring et al fails to teach a set of tags for a set of viewing condition data corresponding to a set of viewing conditions. Meir et al discloses a method for facilitating image transfer between transform spaces comprising the step of providing a profile

viewing environment which includes a tag table acting as a table of contents for the profile tags and the tag element data therein (Figs.1-3; col. 3, lines 39-40; col. 4, lines 13-28). It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of a profile including a set of tags in Meir et al in the set of viewing conditions in Ring et al since Meir also teaches a viewing condition profile for facilitating image transfer between transform spaces of different sources and destinations.

Concerning claim 51, Ring teaches a method as discussed in claims 1-50 above. Ring further teaches the step of incorporating the source color transform in a color transformation sequence (Fig.2) wherein the source device color characteristic data is formatted according to a standard predetermined format.

Ring et al fails to teach that the format of the characteristic data profile has a plurality of tags. Meir et al discloses a method for facilitating image transfer between transform spaces comprising the step of providing a profile which includes a tag table acting as a table of contents for the profile tags and the tag element data therein (Figs.1-3; col. 3, lines 39-40; col. 4, lines 13-28). It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of a profile including a set of tags in Meir et al in the colorimetric color characteristic profile in Ring et al since Meir also teaches a profile for facilitating image transfer between transform spaces of different sources and destinations.

4. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring et al and Meir as applied to claims 1-37 above, and further in view of Holm (US Patent No.. 6,249,315).

Concerning claims 38-40, Ring et al teaches that the source color data file is formatted according to a predetermined standardized format.

Ring fails to teach that the predetermined standardized format is an extended CGATS/IT8 format. However, it was commonly known that CGATS and IT8 are standardized format. Holm supports that well known in the prior art by teaching that "there is a proposal in the ICC to allow another standard color space based on a standard monitor. This color space is an RGB space, making it more appropriate for uses with many capture devices, particularly RGB-type digital cameras and film cameras. This proposal is also being developed into a standard: "CGATS/ANSI IT8.7/4, Graphic technology-Three Component Color Data Definitions." (col. 6, lines 4-13). It would have been obvious to one skilled in the art at the time the invention was made to includes the standardized format of CGATS/IT8 in the format of the source color data file in Ring et al since Ring does not limit any standard format for the source color data file.

Claims 88-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring in view of Meir and Holm.

Concerning claims 88-90, Ring in view of Meir, Holm teaches a program memory for storing process steps executable to perform a method according to any of claims 1-51, 91-92.

Conclusion

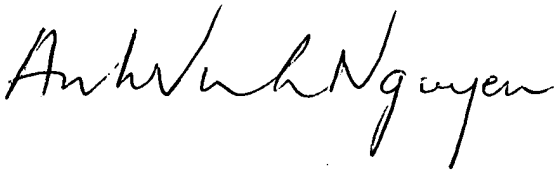
5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 571 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

April 11, 2005